Ethanol Production Using Treated Seed (Nebraska)

Issue:

- Region 7 is providing technical assistance at the request of the Nebraska Department of Environment and Energy and the Nebraska Department of Agriculture as they work to ensure regulatory compliance at AltEn, LLC's ethanol manufacturing plant, which utilizes treated seed in its process. The Region is monitoring NDEE's enforcement actions related to the site.

Background:

- AltEn began operating an ethanol production facility located near Mead, NE (pop. 608), around 2016. It uses pesticide-treated seed as its primary feedstock, which is apparently provided to the facility free of charge. The process by-product is distillers grain or wet cake, which contains high levels of pesticide residues from the treated seed. The facility generates approximately 150 tons of wet cake per day while operating, and stockpiles the material outside.
- Sampling by NDA revealed high levels of neonicotinoid residues in the wet cake. Neonicotinoids are a class of neuro-active insecticides that are long lasting and have special restrictions for their use due to their potential effects on plants and wildlife, especially bees. EPA's Office of Pesticide Programs requires seed bag tags to include language prohibiting the use of treated seed for ethanol production unless there is an assurance of no detectable residues in byproduct used for agronomic purposes.
- Based on the pesticide residues in the wet cake, NDA rescinded approval to use the wet cake as a soil conditioner and NDEE determined the material to be a solid waste. NDEE asked the facility to landfill the wet cake. AltEn landfilled approximately 32,000 tons (1,500 truckloads) of wet cake over the summer of 2020, which was estimated at the time to constitute approximately 1/3 of the total stockpile.
- NDEE and NDA formally requested technical assistance from Region 7 in July 2020. Region 7 worked with OPP, which provided letters outlining its technical perspective on the risks associated with the land application of both the wet cake and pesticide-contaminated wastewater generated at the site. OPP stated it could not conclude land application could be done safely.
- November 2020 groundwater sampling provided by AltEn showed concentrations of certain contaminants, but not at levels above EPA benchmarks.
- NDEE continues to work to ensure regulatory compliance. Most recently, on February 4, NDEE issued an Emergency Order to AltEn regarding its wastewater lagoons; as a result, AltEn has ceased operations.

Ex. 7(A)/Ex. 5 AWP

Upcoming Milestones:

- n/a

Point of Contact:

- Lead Division/Office: ECAD/ORC; Point of Contact: Candace Bednar, 913-551-7562 and Erin Weekley, 913-551-7095.

Supplemental R7 Information

Region 7 Perspective: n/a

Stakeholder Positions:

- **State:** EPA has worked closely with NDEE and NDA providing technical assistance and support when requested. The state remains in the lead.
- **Congressional:** No recent congressional inquiries. At least two bills have been introduced in the Nebraska Legislature's current session, one prohibiting the use of treated seed corn in the production of agricultural ethanol if such use results in the generation of a byproduct that is deemed unsafe for livestock consumption or land application (LB507, hearing 2/3/21); and a second that provides a cause of action for damages if any commercial seller disposes of treated seed in an unsafe manner (LB634, hearing 3/10/21).
- **Public:** A University of Nebraska-Lincoln professor has raised concerns regarding alleged impacts to managed bees on its Eastern Nebraska Research and Extension Center. NDEE received numerous citizen complaints regarding odor, possible pollution of groundwater, and the piles of waste potentially causing illnesses in animals and residents.
- **Other:** Recent developments have generated both local and national press coverage.

Supplemental Information:

- Recent press: https://journalstar.com/news/local/chemicals-dont-just-disappear-persistence-by-researchers-residents-uncovers-pesticide-contamination-at-mead-plant/article_8d31dc75-dcdf-5ed5-b263-c4e158b4a11c.html